



Published weekly for employees of Lawrence Livermore National Laboratory

Friday, March 9, 2001

Vol. 26, No. 10

# Lab expertise tapped to reduce chemical weapons threat

NEWSLINE STAFF REPORT

The Laboratory's state-of-the-art forensic capabilities for ultratrace chemical analysis have been enlisted in the global effort to reduce the threat of chemical weapons.

At the request of the State Department,

Department of Defense and DOE, LLNL has begun the procedure to become the second U.S. laboratory certified by the Organization for the Prohibition of Chemical Weapons (OPCW). The Laboratory was selected because of its cutting-edge Forensic Science Center, state-of-the-art environmental controls and facilities, and physical security.

Based in The Hague, Netherlands, the OPCW is responsible for the implementation of the Chemical Weapons Convention, or CWC, which to date has been ratified by more than 135 countries, including the United States. The CWC outlaws the develop-

See **THREAT**, page 8

## Small-scale modeling yields big dividends

By Sheri Byrd  
NEWSLINE STAFF WRITER

Some of the most well known work coming from the Lab deals with computational modeling at the smallest level. Providing invaluable data to many projects involving simulations at the microscopic scale is the Quantum Simulations Group (QSG) in the Physics and Applied Technologies directorate, led by physicist Giulia Galli.

## SCIENCE DAY

Harnessing the Lab's unique computational power and the JEEP code developed by team collaborator Francois Gygi from Computation, Galli and her team conduct simulations at the microscopic level using the laws of quantum mechanics.

"There is no doubt that using this Lab's computational power is a unique opportunity," said Galli. "In no other place in the world could we do quantum simulations for systems as large as we can deal with here, and so closely represent true experimental conditions and approach actual experimental results."

The team's current work explores the quantum behavior of various fluids under high pressure, behavior of DNA in water, and the properties of complex surfaces and nanostructures.

"Our goal, and what we are excited to actu-

See **GALLI**, page 8



JOSEPH MARTINEZ/TID

Giulia Galli

## Computing pioneer to speak

In addition to many of the Lab's own top scientists' presentations, Science Day will host Larry Smarr as its plenary speaker.

Smarr's talk, "From the Supercomputer to the Grid," will be held at 9 a.m. in the Bldg. 123 auditorium.

See **PIONEER**, page 8

## Jay Davis to return as Lab's first fellow for national security

PUBLIC AFFAIRS OFFICE

Jay Davis, the director of the Defense Threat Reduction Agency (DTRA) — a Department of Defense related organization — will return to the Laboratory to become the first National Security Fellow at the Center for Global Security Research, effective July 1.



Jay Davis

LLNL's Center for Global Security Research brings scientists and technologists together with analysts and others from the policy community to study ways in which technology can enhance national and international security. The CGSR supports independent, multidisciplinary research that explicitly considers the integration of technology in defense, arms control, non-proliferation and peacekeeping.

"I am pleased that Jay will be rejoining our Laboratory as our first National Security Fellow," said Director Bruce Tarter. "Jay has extraordinary knowledge of the Lab. Coupled with his experiences in Washington, D.C., he will make a superb

See **DAVIS**, page 7

# DDLS presentation dives into carbon sequestration in ocean depths

PUBLIC AFFAIRS OFFICE

Chemical experiments in the deep sea will be discussed in depth when Peter Brewer, senior scientist at the Monterey Bay Aquarium Research Institute, presents the next Director's Distinguished Lecturer Series. The talk takes place at 3:30 p.m., Monday, March 12, in the Bldg. 123 auditorium.

The initial work of Brewer and his colleagues at the Monterey Bay Aquarium Research Institute focused

on the experimental creation and manipulation of methane hydrates in their native oceanic setting at about 800 meters depth. This was soon followed by the extension to hydrates of carbon dioxide and their relation to deep-ocean sequestration of fossil fuel carbon dioxide, with work ranging from 250-3,600m deep.

New results now emerging from joint experiments with the Laboratory and the U.S. Geological Service reveal

the quite rapid dissolution rate of hydrates. Brewer will discuss his findings during his presentation.

"Over the last five years we have rapidly advanced the art of carrying out sophisticated chemical experiments in the deep sea," said Brewer. "This has been made possible by the availability of advanced remotely operated vehicles (ROVs) which serve as the carrying platform and provide power, data rates, real time visualization, and robotic

manipulative capability undreamed of only a few years ago."

Brewer and his colleagues measured the fate of rising plumes of gas bubbles in real time to examine the consequences of both gas line blowouts, and natural hydrate venting. They carried out the first ever controlled deep-sea measurements to examine the changes in micro-geometry of porous

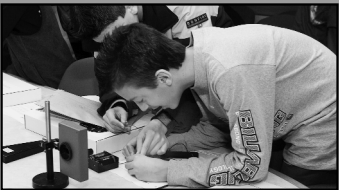
See **DDLS**, page 8



What your genes can do for you  
— Page 2



ILSA sparks new areas of research  
— Page 3



Future engineers explore options  
— Page 5





## LAB COMMUNITY NEWS

### Weekly Calendar

#### Technical Meeting Calendar, page 4

Friday  
**9**

The Lab is hosting a **free tax workshop** today for foreign nationals whose tax-filing status is non-resident, from 1:30-3:30 p.m. in the Bldg. 123 auditorium. UC Berkeley will offer this workshop for both international employees and visiting international scholars (participating guests, student guests).

Saturday  
**10**

There will a **scheduled power outage** from 7 a.m. to 3:30 p.m. on Saturday and Sunday. Saturday's outage will affect: Bldgs. 366, 378, 379, and U470; and trailers 3724, 3725, 3726, 3751, 3775 and 3777. Sunday's outage will include trailers 404, 406, 5626 and 5627. Contact: Mark Cardoza, 3-0490.

Saturday  
**11**

The **Livermore Valley Coin Club** will hold its 38th annual coin show and sale on from 10 a.m. to 5 p.m. at the Elks Lodge in Springtown. More than 30 dealers will offer gold, silver and base metal coins from the United States and foreign countries. Admission is free. Contact: Livermore Coin Co., 449-1973.

Monday  
**12**

**B Division's spring book sale** will be held Monday through Friday, 11:30 a.m. to 1:30 p.m., in Bldg. 132, room 1200 (Q- or L-cleared access only). Used books, videos, CDs and books-on-tape are on sale; all proceeds are used to buy Christmas gifts for needy children. Contact: Lynn Groves, 2-1684.

Thursday  
**15**

**Martha Krebs** will deliver the keynote address for Women's History Month when she discusses "Managing Science: Oxy-moron or Real Life?" at noon in the Bldg. 123 auditorium. All employees are invited to attend. Krebs, former director of DOE's Office of Science, is currently director of the California NanoSystems Institute, a collaboration between UCLA and UC Santa Cruz.



The **LLNL Retirees Travel Slide Group** will meet March 27 at 2 p.m. in the Livermore Library meeting room. Arnie and Margo Kirkewoog will present "Bali Scenery and Hindu Temples." Contact: 449-7262.



**LAB TV**

#### BROADCAST SCHEDULE

The DDLS talk by **Peter Brewer of the Monterey Bay Aquarium Research Institute**, will be rebroadcast on Lab TV channel 2 on Thursday at 10 a.m., noon, 2, 4, and 8 p.m., and Friday, March 16, at 4 a.m.

## Saturday talk takes a closer look at genes

The Lab's Science on Saturday series will feature a talk tomorrow on "What Do Your Genes Really Do?" from 9:30 to 11:15 a.m. in the Bldg. 123 auditorium.

Joanna Albala of the Lab's Biology and Biotechnology Research Program and Tracy High School Teacher Kirk Brown will discuss one of the most exciting scientific discoveries of this or any century: the completion and consequences of the Human Genome project.

"This presentation will describe how a scientist can use information obtained by the Genome Project to understand how a cell functions. We will discuss how we obtain information from genes to make proteins and how we can use these proteins in the laboratory. We will also discuss career opportunities in science and where the next scientific hot spots are to be found," Albala said.

Science on Saturday is a six-week series of free 90-minute talks geared toward middle and senior high school students.

The lectures will be offered every Saturday through March 24, from 9:30 to 11:15 a.m. All of the talks will be in the Bldg. 123 auditorium, and are open to students, their parents or guardians and teachers. Registration is at the door and seating is available on a first-come, first-served basis, with priority given to students and teachers.

The series is co-sponsored by the Laboratory's

Science & Technology Education Program and the Livermore chapter of Sigma Xi, the Scientific Research Society.

Additional workshops for grades 6-8 teachers have been added to the Science on Saturday lectures. The teacher workshops expand on the Science on Saturday talk with the aid of Great Explorations in Math and Science (GEMS) classroom guides and materials. Each teacher workshop is held at the Lab Visitors Center from 8 a.m. to 3:30 p.m.

Teachers who attend all four workshops are also eligible for two semester units of credit. Teachers should register with Liselle Clark (clark87@llnl.gov, 2-5468) or Paula Thomson (209-468-9096).

Here's the schedule for the remaining talks in the series:

March 17 — "Can We Predict If Our Climate Is Changing?" by Gerald Potter of LLNL's program for Climate Model Diagnosis and Intercomparison, Ron Rusay of Diablo Valley Community College and Amador Valley High School teacher Eric Thiel.

March 24 — "How Light Is Changing Your Future" by Chris Ebberts and Joel Speth of LLNL's Laser Science and Technology Program and West High School teacher Randy Mohenke.

For more information on Science on Saturday, check the Web at <http://education.llnl.gov/sos> or call the STEP information line at 2-6818.



## IN MEMORIAM

### Robert Huddleston

Robert E. "Bob" Huddleston, a retired mathematician, died Feb. 21 in Alameda. He was 61.

Huddleston was appointed the department head of the Computing Sciences Department in Computations in 1989. He went on to become a special assistant to the Computations Directorate before he retired in 1997. Prior to joining the Lab, he worked at Sandia for 18 years as a division leader and was instrumental in planning and establishing their computer systems.

He was a member of numerous professional organizations including Numerical Algorithms Group Users Association in Oxford, England.

Huddleston was born in Hugo, Okla., and raised in Fort Worth, Texas. He earned his bachelor's degree from Texas Christian University, his master's from the University of Arizona and his doctorate from Texas Christian. He performed post-doctoral studies at the University of Maryland.

He was awarded the General Dynamics Fellowship, the Woodrow Wilson National Fellowship, National Sciences Fellowship, Graduate Teaching Fellowship and the Postdoctoral Research Fellowship.

Huddleston was an avid sailor and a member of the Oakland Yacht Club. He was a former member of the St. Francis Yacht Club, where he regularly raced.

Survivors include his wife, Deborah, a brother and a sister.

A memorial service will be held at 2 p.m. Saturday, March 17, at the Oakland Yacht Club, 1101 Pacific Marina, Alameda, with a reception following. Contributions in his memory may be made to the Humane Society or a charity of choice.

### Morton Larsen

Morton "Bud" Larsen, the former Plant Engineering Department head whose Lab career spanned 25 years, died March 4 in Walnut Creek. He was 79.

A visitation will be held from 1-2 p.m. Saturday, March 11, at the Chapel of San Ramon

Valley, 825 Hartz Way, Danville. Memorial Service will follow at 4 p.m. at Our Savior's Lutheran Church, 1035 Carol Lane, Lafayette.

Larsen was born in Salt Lake City and attended the University of Utah, where he received a bachelor's degree in mechanical engineering.

He joined the Lab in 1955. As a project manager, he designed and tested an early nuclear warhead eventually used in Polaris missiles. In 1961 he was transferred to the Mechanical Shops Department, where he eventually became department head. In 1966 he was named head of operations in Plant Engineering and in 1967 he became head of Plant Engineering, where he managed development, operations and maintenance of the Lab's infrastructure until his retirement in 1979.

Larsen enjoyed restoring cars and boats, designing household amenities such as a garage door opener and hand-rotated TV antenna, and relaxing on his boat near Bethel Island. He was also active in a variety of church and community activities.

Survivors include his wife of 51 years, Dorie Marie; sons Dave, Rich and Greg; and two grandsons.

Contributions in his memory may be made to the Muscular Dystrophy Association, 3300 East Sunrise Drive, Tucson, AZ 85718-3208; or Lutheran World Relief c/o Our Savior's Lutheran Church, 1035 Carol Lane, Lafayette, 94549.

## Newsline

Newsline is published weekly by the Internal Communications Department, Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

#### Contacts:

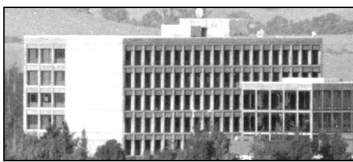
**Managing editor:** Lynda Seaver, 3-3103  
**Writers:** Sheri Byrd, 2-2379; Don Johnston, 3-4902; Elizabeth Rajs, 4-5806  
**Designer:** Julie Korhummel, 2-9709  
**Distribution:** Mail Services at LLNL

**Public Affairs Office:** L-797 (Trailer 6527), LLNL, P.O. Box 808, Livermore, CA 94551-0808  
**Telephone:** (925) 422-4599; Fax: (925) 422-9291  
**e-mail:** [newsline@llnl.gov](mailto:newsline@llnl.gov) or [newsline@llnl.gov](mailto:newsline@llnl.gov)  
**Web site:** <http://www.llnl.gov/PAO/Newsstand/internal-comm.html>





AROUND THE LAB



# Laser institute ignites academic collaborations

*Editor's note: This is the fourth article in an ongoing series on the Lab's research institutes. Today's article looks at the Institute for Laser Science and Applications.*

By Elizabeth Campos Rajs  
NEWSLINE STAFF WRITER

Although it is only five years old, the Lab's Institute for Laser Science and Applications is a fast-rising star in the physics world.

A collaborative project with the Stanford Linear Accelerator Collider on the demonstration of a plasma lens for GeV electrons and positrons was recently hailed in "Physics News in 2000" as one of last year's top breakthroughs.

The research, led at Livermore by ILSA director Hector Baldis, with the participation of V Division of the Physics and Advanced Technologies Directorate, was presented at the November American Physical Society's Division of Plasma Physics meeting in Quebec.

"We have a very successful program with SLAC," Baldis said.

In the last two years, ILSA-sponsored researchers have published more than 58 papers and presented more than 98 papers at various conferences.

And judging by the institute's missions, ILSA shows no signs of slowing down. ILSA's main thrust is to "strengthen the research interactions between LLNL and the academic community in the field of high-power lasers and their applications."

Founded in 1996, the institute is one of the University Relations Program's five institutes, which together form a centerpiece of the Lab's research collaborations with universities. The other institutes are the Institute for Scientific Computing Research, the Center for Accelerator Mass Spectrometry, the Materials Research Institute and the Institute for Geophysics and Planetary Physics.

"ILSA has a very important role to play in training the next generation of young scientists who will be doing experiments on NIF," said Harry Radousky, acting director of the University Relations Program.

Baldis, who is the founding director, initially came to the Lab in 1991, left two years later to work in France at the Ecole Polytechnique, and subsequently returned to the Lab in 1996 to launch the newly formed institute.



JOSEPH MARTINEZ/TID

Hector Baldis

"The challenge of forming something from scratch and the opportunity to work closely with universities was very appealing," Baldis said. "All of my career had been in government in Canada, Livermore and France. I am looking forward to working in collaboration with the academic community."

"We want to develop bridges within the Lab to help get people in different directorates together," Baldis added.

The institute currently is sponsoring eight collaborative research projects with UC campuses through the University Collaborative Research Program. It also is involved in joint research projects with universities across the country, including the University of Texas, the University of Colorado, MIT, UCLA and the University of Rochester.

Present areas of scientific research include laser plasma interaction physics, X-ray lasers and applications, ultra-short pulse interaction physics and laser science and development.

"As part of the development of novel X-ray sources, we are starting a program on their application to protein crystallography, as a multiple directorate project," Baldis said.

The research focus is on laser applications, Baldis explained, with a particular emphasis on plasma physics. Although plasmas — the fourth state of matter — have existed in laboratories for more than 100 years, "lasers give you the ability to generate plasmas of very unique characteristics," Baldis explained.

With the world's largest laser now under construction, the institute is focusing more attention on attracting and training the next generation of plasma physicists to the Lab.

There will be a need for researchers with expertise on different areas of plasma physics, high-energy density physics, advanced plasma diagnostics as well as laser technologies.

In addition to the collaborative research projects and opportunities the institute sponsors to bring postdocs and graduate students to the Lab, one of its best recruiting tools is Baldis himself. He serves as the director of the institute half time and spends the other half as a professor of laser plasma physics at UC Davis.

"As a professor at UC Davis, I see all the students applying to the graduate program. If their interest is in plasma physics, I approach them and try to find them a Lab adviser," Baldis said. "A high priority for the institute is to recruit students to the Lab."

"In my role of professor, I'm enjoying the opportunity to teach graduate and undergraduate courses."

The institute currently has three postdocs working at the Lab and is in the process of hiring two more. It also sponsors between six and 12 students to work at the Lab during the year.

"The purpose of the institute is to bring to the Lab and help train the people who will be required when NIF comes on line," Baldis said. "We attract to the Lab the future brains who will work on NIF. We attract students, hire postdocs and bring scientists in from universities. In those areas, we have been very successful."

"Eighty percent of the postdocs we hire have ended up becoming Lab employees," Baldis noted. "We have a good track record."

As part of its educational outreach mission, the institute also organizes workshops on a regular basis,

See **ILSA**, page 5

## New policy for using non-government-owned computers at LLNL



CIO  
UPDATE

DAVE COOPER

must take into consideration the possible presence of non-government-owned equipment on site.

Non-government-owned computers that are capable of being connected to Laboratory equipment create an opportunity for bypassing many of the Lab's computer security protections. As a result, the Lab must protect itself from the possibility that malicious code (for example, viruses) could be introduced into LLNL networks or that unauthorized persons could gain access to sensitive information. This policy establishes a system of approvals to prevent those possibilities.

Other policies, including those referenced below, may also apply to the use of these computers. A Controlled Items Permit, obtained through Safeguards and Security, is required when non-government-owned computers are brought in to limited or exclusion areas.

With the increasing portability of business-related computers and other privately owned electronic devices, protection strategies for Laboratory computing resources

The following rules apply to the use of non-government-owned computers in the various areas of the Laboratory.

### Stand-alone non-government-owned computers:

- Permitted in open areas without restrictions.
- Permitted in property protection areas, but organizations within those areas may impose approval requirements in specific buildings. Contact the cognizant OISSO for details.
- Permitted in limited or exclusion areas only with prior notification and approval obtained through the OISSO of the organization controlling a particular area. (Some areas may require a risk assessment conducted by the OISSO.)

### Non-government-owned computers connected to an institutional network:

- Permitted in restricted (yellow) networks only with approval from the cognizant OISSO after a required risk assessment (using form F-2026).
- Permitted in unrestricted (green/llnl.gov) networks or visitor (green/ucllnl.org) networks only with an approved connectivity plan (as per policy P-2017).

### Non-government-owned computers connected to other (non-network) DOE equipment:

- Involves sensitive information:  
Permitted only with approval from the cognizant OISSO after a required risk assessment (using form F-2026).
- Does not involve sensitive information:  
Permitted only with approval from appropriate personnel local to where computer will be used.
- Modem use:  
Permitted only if consistent with LLNL modem policy (P-2013).

### Implementing the policy

Anyone intending to use non-government-owned equipment on site must plan ahead by contacting the appropriate on-site personnel to get required approvals prior to bringing equipment on site. Any use of LLNL communications resources must be made with the understanding that such use is generally not secure, not private, and not anonymous.

David Cooper is associate director for Computation as well as LLNL's Chief Information Officer.





NEWS YOU CAN USE

Foundation seeks nominees for Inventor of the Year

The Intellectual Property Owners (IPO) Educational Foundation is taking nominations for the Inventor of the Year Award.

The award recognizes America’s most outstanding recent inventors. Its purpose is to increase public awareness of current inventors and how they benefit the nation’s economy and quality of life. The National Inventors of the Year have been featured in the *New York Times*, *Washington Post* and other publications.

The Inventor of the Year Award includes a plaque and a \$5,000 cash grant. Runners-up are honored with Distinguished Inventor awards.

To qualify, an invention must have been invented in the United States, be covered by a U.S. patent and either patented or made commercially available since the beginning of 1997.

Nominations are solicited from independent inventors and from inventors employed in industry, universities and government. Self-nominations are accepted. Nominees should epitomize the American traditions of technological leadership and “Yankee ingenuity.”

Applications are available on IPO’s Website at [www.ipo.org/iyawards.htm](http://www.ipo.org/iyawards.htm), and are due April 9. Packages must include a one-page, non-technical summary of the invention, a one-page biography of the inventor, and a copy of the U.S. patent.

The IPO guidelines state that photographs or drawings of the invention are helpful, and that newspaper or magazine articles, technical reports, independent evaluations and marketing information can also be submitted.

If selected, inventors must be present at the June 5 awards ceremony in Washington, D.C. Winners are encouraged to provide an exhibit showcasing their invention.

Submit all nominations with supporting materials to IPO Educational Foundation, 1255 23rd St. NW, Suite 200, Washington, DC 20037-1174; or fax to 202-466-2893.

For more information, e-mail [info@ipo.org](mailto:info@ipo.org) or call 202-466-2396.

# Join your co-workers in fighting cancer

**Purchase a bunch of freshly cut daffodils (10 stems) for \$10.  
A vase is available for an additional \$5.**

Money from this American Cancer Society-sponsored event will go to research, education and patient services.

The deadline for an LLNL order is **Friday, March 9.**  
Delivery will be on **Monday, March 26.**



Check the list below for the LLNL Daffodil Days volunteer nearest you who is accepting orders.

Name	Bldg.	Rm.	Phone	Name	Bldg.	Rm.	Phone
Bell, Christine	381	1356A	3-9447	Mahler, Florann	551E	2101C	2-9173
Berkich, Tracy	071	1020	2-8246	Miller, Margie	315	285	3-0269
Bertram, Sharon	261	1408	2-5853	Pereira, Kris	871	124	3-5245
Bishop, Sue	321A	1020C	2-9593	Pierce, Sue	2679	1269	3-1094
Breznik, Joanne	616	100	4-4101	Purpura, Gloria	1878	104	2-7281
Carter, Karen	234	1020	3-5934	Quick, Bonnie	451	2005	2-6510
Carter, Marilyn J.	1877/1879	126	2-7715	Riendeau, Misty	5979	100	2-9521
Cochran, Loretta	253	1524	2-0964	Rodrigues, Lei Loni	131	2088	2-0654
Conrad, Janet	218	119	2-7561	Rutan, Dena	482	2234A	3-1813
Continente, Jenifer	113	5024	2-6644	Schleich, Dabbie	132N/151	2841	2-1241
Copp, Kathy	235	2070	4-2597	Schmidt, Sharon	663	1000	2-7459
Crippen, Terri	5477	1042	3-9878	Sefcik, Cookie	3226	104	3-2242
Curtis, Leslie	132N	1489	2-0217	Serrato, Martha	3725	437	2-5116
DaRonco, Dawn	331/335	1029	2-6649	Shuler, Jean	113	1030	3-1909
Dewolf, Chris	543	1281	3-8348	Simmons, Mag	191	2123B	2-3364
Fread, Lanette	411	1422	2-9288	Springer, Frankie	111	332	3-6192
Gagetta, Rita	111	501	3-1161	Sorensen, Nanette	2925	101	2-9670
Garrett, Liz	1406	1117	3-2482	Taberna, Sharon	361	1741	4-2263
Gonsalves, Sandi	170/1739	2112	3-8821	Twiss, Carol	571/671	1138	2-9395
Grandfield, Charlene	5475	1359	3-1779	Watt, Maggie	332	1138	3-6003
Gros-Baumgartner, Bertie	121	1103	3-7751	Weyburn, Sandy	511	203D	2-0840
Jessup, Mary	231	1236	3-1760	Williams, Anita	132N	2254	2-4550
Jimenez, Irene	511	213	3-1273	Ybarra, Corinne	481	2075A	3-9501
Lindsay, Karen	432	2003	4-4371	Yazzie, Darlene	132S	2121	3-7846

Technical Meeting Calendar

Friday  
**9**

**INSTITUTE OF GEOPHYSICS & PLANETARY PHYSICS**  
“Gamma-Ray Bursts: The Afterglow Revolution,” by Titus Galama, CalTech. Noon, Bldg. 319, room 205 (open area). Contact: Joanna Allen, 3-0621, or see <http://www.llnl.gov/urp/IGPP/SemCalendar/IGPPSemCal.html>

Monday  
**12**

**UC DAVIS, DEPARTMENT OF APPLIED SCIENCE**  
“Sperm Chromatin Structure, DNA Damage Recognition by Repair Proteins and Target-Specific High-Affinity Ligands,” by Rod Balhorn, Biology & Biotechnology Resarch Division, LLNL. 4 p.m., Bldg. 661, room 7 (open area). Refreshments served at 3:30 p.m. for a “meet the speaker” session before the seminar and at 5 p.m. after the seminar. Contact: Estelle Miller, 2-9787.

in CEM,” by Oscar Bruno, California Institute of Technology. 10 a.m., Bldg. 451, room 1025 (uncleared area). Contacts: Xabier Garaizar, 3-1521, or Leslie Bills, 3-8927.

Friday  
**16**

**INSTITUTE OF GEOPHYSICS & PLANETARY PHYSICS**  
“Warps, Polar Orbits, and Resonant Capture in Galaxies and Planetary Systems,” by Scott D. Tremaine, Princeton University Observatory. Noon, Bldg. 319, room 205 (open area). Contact Joanna Allen, 3-0621, or see <http://www.llnl.gov/urp/IGPP/SemCalendar/IGPPSemCal.html>

Tuesday  
**20**

**INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH**  
“Boundary Conditions and Estimates for the Stokes Equations on Staggered Grids,” by Bertil Gustafsson, Stanford University. 10 a.m., Bldg. 451, room 1025 (uncleared area). Contacts: David Brown, 4-3557, or Leslie Bills, 3-8927.

Friday  
**23**

**INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS**  
“Quasar-Illuminated Dust Reflection Nebulae,” by Kenneth

Chambers, University of Hawaii. Noon, Bldg. 319, room 205 (uncleared area). Contact: Joanna Allen, 3-0621.

**Deadline for the next calendar is noon, Wednesday, March 14.**

- Address e-mail to [tmc-submit@llnl.gov](mailto:tmc-submit@llnl.gov) or fax to 2-9291.
- Mail listings to Technical Meeting Calendar, L-797.
- Telephone ext. 2-9709 for information regarding the printed calendar.

For information on electronic mail or the newsgroup [llnl.meeting](mailto:llnl.meeting), contact [registrar@llnl.gov](mailto:registrar@llnl.gov)

### Did you know?

There’s proper terminology for areas at the Lab:

- Open area (aka White area)
- Uncleared area (aka Red or Property Protected area)
- Cleared area (aka Green or Limited area)

*Note: lingo may change as badges change.*



## NEWS OF NOTE



## Low-cost fuel for vanpool drivers

Beginning March 12, registered vanpool drivers will be able to purchase gas for their vans at the Lab's fuel station, taking advantage of the reduced fuel costs the Lab gets because of its bulk buying power.

The new fuel incentive program, called "Fill'er Up with Gas for Less," is co-sponsored by Fleet Management's Transportation Systems Management Program (TSMP) and the Laboratory Employee Services Association (LLESA).

Until now, only government-owned vehicles could be fueled at the stations, which are located behind Bldg. 611.

"The goal is to reward existing vanpoolers and to provide an incentive for employees to form new vanpools," says D'Anne Miller, TSMP program manager.

The DOE Oakland Operations Office Return on Investment (ROI) Program provided the seed funding for this emissions reduction incentive program.

"It is important for DOE to take a leadership role at LLNL for emissions reduction, considering the growing number of vehicles in the valley and the direct effect on the surrounding air quality," said

Karin King of DOE/OAK's pollution prevention program. "In addition, this program supports the president's executive order on 'Greening the Government' by encouraging efficient commuting through the use of vanpools, reducing petroleum consumption, and ensuring a healthier environment."

Effective March 12, vanpool drivers who register with TSMP and receive a windshield sticker, can use their personal debit card from any bank to purchase regular unleaded (87 octane) gasoline for their commute vans at the Bldg. 611 fueling station.

According to Fleet Manager Sal Ruiz, "The price per gallon of gas varies with each delivery (approximately every two weeks), therefore; the price for the day will be posted at the pumps."

LLESA is partnering in this project by providing financial expertise to Fleet and TSMP and processing credit card transactions. After six months, the pilot program will be evaluated for long-term implementation.

Eligible vanpools must have the capacity for at least seven riders (including the driver) and must register with TSMP. For more information about the program, call TSMP at 2-RIDE. To fill out an application, go to <http://www-r.llnl.gov/tsmp/fill-up.html>



## SECURITY REMINDERS

### Conversion of Bldg. 311 turnstile

The exit-only turnstile located on the sidewalk at the southeast side of Bldg. 311 will be converted to a two-way electronic turnstile beginning March 15. The vouching booth will remain in operation, but will be temporarily out of service for upgrades once the two-way turnstile is installed.

Persons entering and exiting the limited area should use the turnstile while the booth is not operating. Use of the new turnstile will require a badge read and PIN entry when entering the limited area, and push button for exit from the limited area.

Questions regarding this conversion should be directed to the Safeguards & Security Department, Physical & Technical Security Group, 2-9191.

### New Security Awareness coordinator

Kent Oelrich is the new Safeguards & Security Department Security Awareness coordinator. Oelrich is responsible for the development and preparation of the initial, comprehensive, refresher, termination, and site-specific security briefings for LLNL employees.

These briefings are to ensure employees are familiar with all applicable safeguards and security directives and procedures and other matters of security interest, such as recent espionage cases, approaches and recruiting techniques employed by foreign intelligence services, and safeguards and security threats or vulnerabilities. Oelrich replaces Laurie Whitsel, who retired from the Laboratory on March 1.

Questions pertaining to security awareness can be directed to Oelrich at 3-3300.

## Expanding Your Horizons needs volunteers

Volunteer help is still needed tomorrow at the Tri-Valley Expanding Your Horizons Conference, which is held at the Pacific Bell Administrative Center in San Ramon.

The conference runs from 8 a.m. to 4:30 p.m. Saturday, and the set-up begins at 7 a.m. Any amount of help would be appreciated. If you work all day, lunch will be provided. To volunteer, contact Evelyn

Fearon, 3-1817 or [fearon2@llnl.gov](mailto:fearon2@llnl.gov)

This career conference for sixth through 12th grade girls offers hands-on workshops in math- and science-related careers. Its purpose is to foster awareness of career opportunities in the math and science fields and to provide young women with the opportunity to meet and interact with positive role models who are active in those careers.

## ILSA

*Continued from page 3*

such as the fourth International Workshop on Laser-Plasma Interaction Physics held in February in Banff, Canada. The workshop was co-sponsored by the University of Alberta, Edmonton.

The institute hosts training sessions and organizational seminars on a regular basis and is now in the process of exploring whether a master's program in optical or laser sciences can be offered through the UC Davis Department of Applied Science for Lab employees.

ILSA recently issued its call for proposals, all of which will be peer reviewed. Baldis expects to award \$250,000 to projects proposed jointly by a Lab principal investigator and a university researcher.

"The project has to be excellent science, it has to be a strong and meaningful collaboration between the Laboratory and the campus and there has to be a student involved," he explained. "We want the project to have relevance to the Lab."

In addition to its educational outreach and collaborative research, the institute also facilitates the use of Lab equipment by university researchers.

ILSA is also part of the newly formed Physics and Advanced Technologies Directorate. Baldis said he is working closely with PAT's principal deputy AD Bill Goldstein to strengthen the ILSA.

"We are working with PAT to develop a program to bring professors in to use lasers at the Lab," Baldis said. "We have a strong collaboration with the University of Rochester, which now has the most powerful laser in the country, and it will be that way until NIF comes on line."

For more information about the ILSA, check out its Website at [www.llnl.gov/urp/ILSA](http://www.llnl.gov/urp/ILSA)



As part of National Engineers Week, the Engineering Directorate hosted hundreds of children from area schools for a lecture on what it's like to be an engineer. The students were then allowed to participate in some hands-on exhibits with various Lab engineers.



## Engineering next generation of Lab recruits

PHOTOS BY JOSEPH MARTINEZ/TID







# CLASSIFIED ADS

See complete classified ad listings at  
<https://www-ais.llnl.gov/newsline/ads/>

**AUTOMOBILES**

Nissan Stanza, 4D, AT, PS, AC, AM-FM cass, 141k, great cond., \$2600/BO. 925-691-6081.

1997 Lexus ES300, loaded, exc. cond., low miles, \$26,000. 209-599-3781.

1992 - Chevy Astro 8 Passenger Extended Van, AT, PS, ABS, AC (front & rear), CC, Tilt, PL, PW, AMFM Cass, Alloys, Exceptional, \$6,000 925-846-1871

96 - Honda Civic EX 2dr. blk/grey int.69K miles,loaded stereo(\$1500 system), moonroof,new rims/tires \$9,800/OBO 925-455-5199

1994 - Chrysler Town & Country Mini Van - 3.8 liter V-6, Auto, AC, AM/FM/CD, leather, roof-rack, excellent condition, 85.6K miles, \$8499 OBO. 925-447-0383

1988 - Camaro, V8/305, AT, AC, cruise, original owner, 60K on engine, \$3200-firm 925-447-8613

1987 - mazda 323,5 sp,4 dr,a/c,sunroof-good brakes, tires,paint,212k miles, smogged,runs good \$1200 [wholesale price] 209-524-7126

1998 - Toyota 4\_Runner 4WD SR5 V6 automatic loaded 43Kmi. \$21k obo 925-455-5702

1991 - Mazda MIATA, Red w/black top & int. Alloy wheels, AC, AM/FM/Cassette, 2 covers, bra, luggage rack, etc. 69K miles! Exc. cond. Fun to drive! \$8550. 925-449-5667

1990 - 4Runner, white w/blue interior,4WD,V6,5spd,new tires,AC,PW, 10 disc CD, sunroof, thule roof rack, towing package, rebuilt engine, \$9,735. 925-803-9928

98 Mustang GT, 4.6L V8, green, spoiler, 17in. alloy wheels, <12K mi, 6 MACH speakers, Pioneer removable CD/radio, new frnt tires, \$19K firm. 925-447-9268

1994 - Toyota Camry LE 4dr.4 cylinder am/fm cassette stereo,auto doors and windows,like new 117,000 miles, 8000 obo. 925-755-2753

1993 - Ford Mustang LX HB, V4, 5 speed, green 94K miles, A/C, AM/FM/cassette, power accessories, CC, original owner, good condition, \$3,500/OBO. 925-373-0314

1988 - Toyota Celica ST, runs reliably well, new tires and brakes, engine recently tuned and cooling system refurbished, asking \$1,250 or bo. 925-736-0518

1986 - Mustang LX, 5.0 Liter, Convertable. \$3.500 OBO. 209-892-3508

1997 - 4-door Mitsubishi Galant. 4cyl approx 65K mi. Good condition. \$8,200 as is. 925-449-0765

2001 - Mitsubishi Eclipse Spyder, V6-200hp, silver w/black top, pwr everything, leather int., Premium Package,only 4,400 miles. Must sell or assume lease! 209-602-5168

1997 - Suzuki JLX Sidekick 4-door, auto 4x4, most options, 1-owner, under 20-k miles,very good condition, warranty 6/01. asking \$ 10,875. 925-447-5633

1995 - Chevy Blazer LS, 4wd, 4dr, 80000 miles, power everything, am/fm/cassette, AC, runs very well, \$13,000/obo 925-513-1643

1967 - Ford Gallexy 500 coup, \$700 OBO, clean body, new breaks, rebuilt motor, needs trans-mition and TLC. 925-449-3152

1978 - Datsun 280Z. Needs engine work. \$900.00 OBO. Ask for Collin. 925-447-8820

1990 - Ford Thunderbird, White,

V6 eng. good cond. AT, AC, PW, PB, PS, PL, PW. Needs some work. \$3500 BO, 209-239-2078

1995 - Ford Taurus V6 Auto,Pw W/L,AC,Cruise,Low Milage,EXC \$4000 OBO. 209-858-5807

2000 - SATURN, SC II, 3door, auto, cd, air, pw, 36 mpg. 209-492-0270

1997 - Toyota 4Runner, 5-speed, 63K miles, ex. condition, loaded with extras, \$17,500. 925-426-9886

**AUTOMOBILE ACCESSORIES**

14 inch TIRES: 14 x 7:00 good used bias TIRES fit many cars/great for pickup/trailer. 2 for \$20 925-447-7070

Never-used pair of chains for 245/75R16 - Fits full size Chevy truck/Surburban - \$45 925-447-5293

For 86 Toyota pickup: Warn 8klb winch with tube bumper mount, new \$1000, Aluminum rack \$250, Leer shell \$200. 209-368-4286

Truck Box - Weatherguard for small pick-up truck. Extra welded on lock protection. \$150.00 or b/o 925-449-7570

Trailer hitch, weight distributing, with spring bars and sway control, Ezy-lift brand, \$50. 925-455-1183

4- tires and rims 225/15 all season good trea off Isuzu trooper 6lug 100.00 209-531-1330

**BICYCLES**

Mens mountain bike, new tire,excellent condition \$125 925-736-7799

Bike Trailer and bikes: Bike Trailer \$75. Girls 10sp with upright handlebars \$15. Boys 5sp bmx style bike \$15. 925-443-4413

2 bike rack, locking roof mount. Made in Sweden. THUE model 1060 \$150.oo, OBO. 209-825-0138

1999 Specialized vegas fat boy. Good condition, new tires, tubes and brakes, includes pegs. \$145 obo. 925-449-1324

**BOATS**

TOURNAMENT SKI BOAT 1997 MB Sports Boss LS200 351 EFI 315 HP, 158 hours, CD, extra clean, 4 blade prop, 18,300. 925-516-2198

**CAMERAS**

New Albums/carrying bags,glacene neg.holders Twin lens camera 4 lens 925-735-6002

**ELECTRONIC EQUIPMENT**

Radio equipment,drake t-4xb trans and r-4b rec.,yaesu ft-726r and more 925-447-7780

Stereo Speakers. 125 watts rms with 12 inch, 5 inch, and 3 inch drivers, Linear Phase Studio Monitor models. Excellent condition. \$150 for the pair. 925-443-2245

Sansui stereo receiver, aged but in great shape (100 watt). Sony CD player with carousel, only 2 years old. \$150.00 for both. 925-443-9110

Hi End home theater system \$400; N64 game system+games \$250; Pair hifi speakers \$50; Sony direct drive turntable \$75 925-736-7799

Gas Chromatograph Varian Model 3700 \$500; electronic & test equipment, soldering irons, &

much more. MOVING SALE 925-449-2008

Hp Paavillion Notebook, 433 MHZ-32Rom 4.3 GB Drive-24xCD-Rom,56K modem-3hr. batter, 12inch sscreen \$700/OBO 925-648-7829

KV2 Klips System, KV3 Center Speaker, 2ea KV 1.5 Rear Speakers and 2ea 5x5 Front Speakers. \$1,300.00 or BO. 925-373-9420

Intel P-3,633/133FEB; Intel MB; 256MB/133MHz Ram; 20GB Harddrive ATA-66; 10/100-NIC; 8MB 3-D Video; O/B Sound Card; Never Run; Choice of OS. \$700 925-837-8780

IBM Thinkpad i series 1200 laptop. Bought 6/00 for \$1200. Intel celeron 500 Mhz CPU, 64 MB RAM, 6 GB drive. \$500 925-243-1749

Fuji Laptop Computer-perfect for college student. \$300/obo. 3-0921 925-455-6164

SEGA Genesis. Excellent condition with 2 controllers and 16 non-violent games. \$110 OBO. 925-455-8971

Two MTX 12in. subwoofers, with box and 600 Watt Kenwood Amp, with 3 yr warranty. \$700 OBO. 925-828-4937

Old oscilloscopes. Tektronix, hp + others. Vacuum tube technology. Some work, some dont. \$10 to \$30. 925-417-7593

Brother Word Processor,mono-chrome monitor keyboards 925-735-6002

KEYBOARD TRAY-TWO PRINT-ERS. All-metal desktop tray, Apple Color Stylewriter serial, HP LaserJet IIP parallel. Make offer. 925-455-4666

IBM XT computer with Epson printer and IBM Enhanced color monitor - everything works fine - \$150. 925-447-8415

**GIVEAWAY**

Windsurf board. No time for the sport at the moment -- do not need board anymore. FREE. 209-836-2293

Brown vinyl rocker/recliner. Some cracking in arms and back. 925-443-2465

Sofa bed - queen size 925-449-1384

Free 4-unit electric cook top. Down draft ventilation type. 510-226-7440

Be the envy of your neighborhood! We are tired of being the envy of ours! Mature manicured Japanese-Black-Pine topiary, in Tracy. 209-836-4349

Two Matching Loveseats. White with blue, blue/green, thin and thick leaf patterns. Good condition. You pick-up. 925-516-0927

FREE firewood. Load and haul it yourself. Call for details. 925-443-4778

Free dirt, I have two pickup truck loads of clean topsoil that I want to get rid of. I will deliver it in Pleasanton. 925-484-4099

**HOUSEHOLD**

Relaxing, massaging, Bassett recliner, gray-blue, multi vibes, \$65. Tilttable dwg table, 2x3 ft, \$20; drafting machine fits table, \$20. 925-455-0383

Folding table, banquet style, 30 inches by 8 ft, sturdy, \$20 925-516-7524

Bedroom set,Walnut,Circa 1900,Drawers, small side cabinet and double bed frame. \$1200.00 925-447-7780

Sofa, dark blue green, some worn piping, one bad spring. 925-443-2465

MOVING SALE. 808 Buckingham Dr. Manteca. March 17, 18. 8 a.m. to ??? Call if coming from out of area. Washer/Dryer, Piano, more. 209-606-3892

Range, 30-in Electric Maytag, Almond w/glass window in door, remodeling-excellent condition. \$100 209-848-1375

Wolf gas range. Black, 36inch, 4 burners w/griddle. Large oven. Commercial model. approx. 15 yrs old. \$1,500 or B/O. 209-835-3370

Refrigerator. Freezer on top. Good condition. \$100 OBO. 925-606-6599

Chavel style, cherry wood dressing mirror, with beveled glass. \$350 209-545-1548

Modern solid walnut desk (\$125), Sony 17in TV (\$100), Room electrostatic airpurifier; \$100; Electric dehydrator \$25 925-736-7799

Framed painting by local artist Norma Webb (Collier Canyon Scene 1980) 32x44 (size includes frame) \$175 925-447-8613

Baby furniture and accessories. Cribs, changing table, high chairs, gates, playpens, strollers, etc. All excellent. Also clothes, infant-3T. 925-447-7346

Antique walnut dresser, large high-boy style, very good shape, \$175 or BO. 925-516-2774

Sofabed, good condition, 6 feet wide, orange-red color, \$50 obo, you haul from Livermore 925-443-3326

Slide (Step 2 brand) for young children - in like-new condition, only used indoors. \$15 925-443-5663

Computer desk \$20, good condition, but too large for current situation. To give away, book/storage shelf, painted white, approx. 7ft by 4ft by 1ft. 925-449-9341

Sectional sofa w/recliners - mauve, gray, blue pattern. Excellent condition - \$300. 925-634-7513

White-washed pine log canaopy bed frame, dresser and mirror, one night stand, and long mirror. Paid \$1700. Good cond. Make offer. 209-982-9439

Must sell: Up-right WARDS Freezer \$50; Entertainment Unit (87Hx17Dx23.5W)Best Offer. 925-449-4008

Bunkbeds,medium oak, good condition, includes mattresses. \$200 209-825-7120

Computer desk, in good condition, \$35. 925-373-0314

Noritake China 8 place setting white/white with gold edge \$250 925-449-1823

Black wrought iron chandelier, 6 bulbs with glass lamps. \$40.00/BO. 925-443-8442

2- Antique solid oak chairs victorian, turn of the century 1900, hand carved upper, new dark green velvet upholstery. \$300 each. 925-449-3152

Bedroom set, Mediterranean style, King headboard, 2 night stands, triple dresser with 2 mirrors, large wardrobe. \$700.00 925-828-2609

Italian Leather Sofa and 2 over-stuffed matching chairs and ottoman. Cream color. Good condition. \$350.00 925-426-1438

Hide-a-bed sofa and loveseat set. Neutral colors. Mattress has internal springs. \$200 925-516-0856

**LOST & FOUND**

Found Bolle Prescription, bifocal sun glasses, in case. Near South Cafe. 925-443-1172

**MISCELLANEOUS**

Acura Legend taillight assembly for 80is cars, left. \$35 925-447-7070

Glass table top, 1/4-in thick, 42x25-in beveled plate, easily cut down, \$25.. 925-455-0383

Jigsaw puzzles \$2 each or 3 for \$5. All in good condition. 925-606-1944

Beautiful 1.16 carat triangular diamond ring in a very unique setting!! must see to appreciate! \$2,600.00 925-373-1067

8ft stepladder \$20, Sears heavy-duty sander (\$70), scroll saw (\$70), small hydraulic jack \$15 925-736-7799

Blood Pressure Monitor, one step auto inflation, like new \$50, toaster oven \$20, Samsonite 24 inch hardside suitcase (wineberry) \$35 925-447-8613

Medela Pump in Style brest pump. Excellent condition. \$100. 925-454-9253

1920s or 30s chaise lounge, totally refurbished 5 yrs ago for \$500, great shape and very comfortable, Sell for \$200 or BO. 925-516-2774

Nylon parachute, white, without nylon cords. Make offer. 510-782-2349 after 5 pm. 510-782-2349

CRAFTSMAN 14in BAND SAW: Like new. 1.5HP, 2700 FPM, stand, manual, tilting-table machined for miter-gauge and rip-fence. 1/8-1/2in blades. \$175 obo. 925-454-8911

Two older Direct-TV receivers w/H cards, \$300 each. Mac-MB1500 Toolbox, \$1300 OBO. 925-634-7513

The Livermore Heritage Guilds Garage Sale Lincoln Highway Garage Pine and North L street Saturday March 10, 9-2 925-447-4561

Silk Screen supplies, hand & power tools, microscope, desks, compressor, & much more. 925-449-2008

Wedding dress, size 8 cost \$900 sell \$275 Large Desk \$99 925-449-1823

2 SF 49ers Season Tickets for Sale call for details 209-825-4718

McLane reel mower from home depot just like new 150.00/ 1/4 yard cement mixer 50.00 209-531-1330

Little tykes playhouse \$60. 925-443-4413

Contempory Brown Saltman walnut bedroom set. Oil finish. King headboard, vanity with mirror, dresser. \$500/BO. Coldspot freezer, works fine. \$25/BO. 925-449-1384

**MOTORCYCLES**

1994 - Sportster 883 Hugger, black, 3500 miles, thunder header exhaust, Corbin seats, aluminum wheels, progressive rear suspension, \$7200, obo 925-373-1504

**MUSIC INSTRUMENTS**

Hammond Spinnet Organ Good Condition \$650.00 925-447-3531

Lab Dance Band (Swing Band) needs musicians; trombone, trumpet, & sax players. Wed. night rehearsals, South Cafeteria . 925-443-2245



DAVIS

Continued from page 1

first fellow.”

Tarter created the fellowship as a way for “outstanding individuals” to spend about a year of their time at CGSR pursuing various national and international security interests. The fellowship will be open to internal and external candidates.

“Jay’s return is an extraordinary opportunity to begin this National Security Fellowship,” Tarter said.

In his new position, Davis’ research will emphasize homeland defense and threats to U.S. forces from unconventional weapons technology.

“I’m very excited to be coming back and working with Ron Lehman to help build the center,” said Davis. “Having had a chance to look at policy and defense issues in Washington, I feel the center can play an important role in coupling the Lab’s technical capability to a broad range of national security problems. I look forward to working with and mentoring some of the people whose exciting ideas I’ve seen during my frequent visits to the Lab.”

“Jay is the perfect individual to take on a number of vital international security issues,” said Ron Lehman, director of the Center for Global Security Research. “Those of us who have worked with him in the past are very pleased that he is coming here.”

Prior to joining DTRA, Davis had a wide-ranging career at the Laboratory, including major

contributions as an experimental physicist creating and eventually leading the Center for Accelerator Mass Spectrometry. Most recently, he was the associate director for the Earth and Environmental Sciences Directorate (now Energy and Environment).

In 1997, Davis was named the first director of DTRA, an agency created to integrate and focus Department of Defense capabilities addressing the weapons of mass destruction threat. The agency is headquartered at Fort Belvoir, Va., and has more than 2,100 military and civilian personnel operating worldwide.

While at DTRA, Davis was twice awarded the Distinguished Public Service Medal by the Secretary of Defense for his contributions to national security. It is the DOD’s highest civilian award.

Old upright piano. Converted from player piano to manual about 70 years ago. Replaced sound board in 1996. \$800 obo. Manteca area. U haul. 209-606-3892

Baldwin Spinnett piano and bench. 58Lx28Wx38H. Walnut finish, excellent condition, recently tuned. 209-239-5983

Hammond B-2 Organ with Trek II percussion; superb condition; call for more info; \$1200 925-443-8442

PETS & SUPPLIES

Aquarium and supplies. 60 gal TRU-VU aquasystem, great cond., beautiful golden oak base, cover, lights, plants, rocks, gravel and fish. \$100 925-417-8944.

Horse for sponser \$75.00 per mo.17 yr. Old thourbreed eng/western located in brentwood has shown western. 925-939-7455

Pet carrier, large plastic with door, \$20. 925-455-1183

BIRD CAGE: 3/4in bar spacing. 4 porcelain crocks. Skirt. 32x23x65in with playtop. MIG welded, light-gray powder-coating. \$150 obo. 925-454-8911

Arabian Gelding for Sponsor, miles of beautiful trails, want experienced, kind rider, unlimited riding, \$100 month. 925-456-7577

Wood double rabbit cage. When new sold for \$150 at Petsmart. Asking \$40. 510-357-4969

Aquarium and supplies. 60-gal TRU-VU aquasystem, great cond., beautiful golden oak base, cover, lights, plants, rocks, gravel and fish \$200. 925-417-8944

Pet Porter animal cage/carrier, medium (27Lx20Wx19H). Good condition. \$15.00 925-447-4352

Two laying hens barred rock \$5.00 for both 925-447-6728

Med-Lg Dog crate, \$30. Carrier, airline apvd, \$30. New Cond. \$55 for both. 925-447-5538

Friendly, hand tame, loving and great with kids; female umbrella cockatoo for sale. \$800.00 or B.O. Must see to appreciate. 209-543-9470

Dog house for a med/lg size dog,has a pad and entrance weather flaps,like new. \$40.00 obo 925-447-6942

RECREATION EQUIPMENT

SNOWSHOES,Beavertail, magnesium and stainless steel cable \$50.00 925-447-7780

Merc 700(70hp) outboard motor with all controls good cond.w/4-6gal fuel tanks \$450/obo 925-846-0717

1995 Wilderness Travel Trlr, 19FT, Sleeps 4-5, Great Condition/Great for Commuter currently in Manteca rv park,a/c,mw,heater - \$8,100 707-570-2775

golf clubs set&bag \$45, Mens mountain bike \$120 925-736-7799

Iron Master multi-station exerciser. \$595. OBO 925-443-4806

Back Pain Freedom: Inversion Table by Health Mark. For stretching out the body and back. Less than year old. Like New condition. Asking \$225. 925-294-8781

Bumper Pool Table. Rectangular, walnut, 54 x 38 inches. 2 sticks, 31 balls + solid top. Easily disassembles for storage. Excellent Condition. \$475. 510-865-1496

Exercise Equipment: NorticTrak Treadmill, Precor Rowing Machine, Stationary Bicycle.All in Good Condition. \$50 for all Three/No Seperates. 925-837-8780

Ski lift tickets at \$7.50 less than retail. One Heavenly Valley - \$49 and one Sugar Bowl - \$42. Call! 925-846-9564

Treadmill, IMAGE 2001 to 12MPH plus incline. Led display of elapsed time, speed, distance, percent incline and calories. \$99. 925-373-9598

94 Weekender cab over camper model 1010 extended cab, queen bed, a/c, awning, stereo,great shape. \$8,750 OBO. 925-447-4797

Yakima ski rack, locking with adaptors for Explorer and similar roof racks, very good condition, \$40. 925-447-8313

Older Nordic Track in good condition \$45; Stride Walker very good condition \$40; or best offer. 925-371-6113

AB-Roller (for situps) brand new. \$25.00. 925-443-7422

Ski clothing/equipment, youth/adult, many items, some barely used, priced to move; call to inquire. 925-443-3106

1985 Vacationeer Camper. 11 1/2 feet long, fully self-contained. A/C, loaded interior, excellent condition inside and out. Must see. \$5,000.00. 925-456-3010

RIDESHARING

Express your commute, call 2-RIDE for more information or visit the web site at http://www-r.llnl.gov/tsmp/ for more information

Stockton - Relax Read Sleep Laugh your way to/from work. 2000 8-passenger luxury van. Reclining seats, reading lights, laptop connections. 209-462-3269, ext. 2-1855

Modesto - 14 passenger luxury vanpool. Captain chairs and individual reading lights. 8 am - 4:30 pm \$113/month. 209-521-9047, ext. 2-5177

San Jose & Fremont-Mission - Space is available from San Jose and Fremont-Mission areas. Work hours: 7:30-4:30. Call 408-238-1909, ext. 3-3057

Ceres/Modesto - 14 psgr Enterprise luxury vanpool, 7:00-3:30, \$120/month 209-537-0229, ext. 3-6631

Discovery Bay - Existing carpool of 2 looking for 1 or 2 to join us. Please call for more information. 925-634-5754, ext. 3-5481

SERVICES

PARENTS troubled by TEEN behavior? What to do now, before too late? Free info on ToughLove, & Residential Treatment Facilities. (LLNL Meeting) 925-447-7070

Handmade holiday treats for Easter! Gourmet easter cookies \$5/doz; decorated chocolate pretzels \$2/3; Homemade 3-Berry Pie \$9 925-243-1173

Handyman Service, sprinkler installation and repairs, sewer and drain cleaning special rates. 209-847-6623

TUTORING in high school and college chemistry and math. 925-443-2095

Roofing, 28 yrs experience, fully insured 925-454-9200

Need electrical work in your home? Experienced and reasonable. Please call 209-545-8339

Painting - Exterior only. 15 yrs experience. 925-447-5132

SHARED HOUSING

Livermore - 2 rooms available at \$500/ea, 1/2 mile from Lab. All utilities avail., split bills, must get own phone and would prefer no pets. Mature adults only. 925-961-9104

Modesto - Roommate wanted, non-smoker, no drugs, house privileges, W/D, \$450. per month. 209-492-0270

Livermore - Share home in quiet neighborhood, nonsmoker, no pets. \$600 mo includes utilities and private bathroom. 925-447-0436

Livermore - Roommate for unfurnished room in 3BR/home to share with 29 yeal old male; quiet neighborhood 3 miles from Lab; house privileges. \$550 + util. 925-606-1291

Pleasanton - Furnished Room in 2400sqft house, nice neighborhood,tv,phone,non-smoker,professional, female preferred,\$850 includes utils. 925-462-3071

TRUCKS & TRAILERS

1992 - Chevy Astro 8 Passenger Extended Van, AT, PS, ABS, AC (front & rear), CC, Tilt, PL, PW, AMFM Cass, Alloys, Exceptional, \$6,000 925-846-1871

1996 - ford'96 bronco xlt,wht,lthr.,at,a/c,tow,alloys 90k mi. \$13kbo 925-447-7780

1986 - Toyota 4 WD , 117k miles,

warn 8klb winch, tube bumper, tow hitch,camper shell, rack.Great truck, Must sell \$ 4750 209-368-4286

1992 - Utility trailer, good condition, folds to store. \$250 obo 925-443-4819

1982 - Toyota 1.25ton custom built flat bed, dual wheels, rack, hoist, many new parts. A real work horse with custom paint (flames). Runs good. \$2500/offer. 209-836-5764

1990 - NISSAN PATHFINDER 4X4, A/C, P/W, P/L, Moon roof, V-6, Auto trans., 68k miles, New batt., New shocks, \$7900 925-443-1533

1990 - 90 Toyota 4 wheel drive, new enging,clutch,and interior. Asking \$5500.00 925-513-1443 after 5 pm. 925-513-1443

Cross bed tool box for full size PU, black poly with lock. \$25. 925-455-1183

Stockland Campershell. White, fits full size Ford trucks. \$250 925-373-1754

1994 - toyota forerunner SR5 roof rack,cd stereo,tow package,security system,great condition,2WD,98,000 miles, 14,000 obo. 925-755-2753

1991 - GMC extended cab 4x4, big engine (V8) all options, tow package, short bed; nice truck at \$2000 below bluebook. If no answer, please leave message 925-292-1976

1997 - Ford F-250 HD, 460 V8, 4X4, Extra Cab, Long Bed with Liner, Fully Loaded with low mileage. Excellent Condition 925-455-5812

1999 - Toyota-Tacoma-Xtra Cab V6 5-speed, Off-Road package, AC,PW,PL,AM/FM CD w/ stacker, Loaded in great condition with VERY Low Miles. Asking \$19,500.00 925-449-9255

1969 - 3/4T GMC pickup,AT. Needs someone to get her started. \$1,200 or BO. 925-449-1384

VACATION RENTALS

SOUTH LAKE TAHOE - 3 Bedroom 2 Bath Chalet, nicely furnished, all amenities, close to all skiing, few weekends left,most weekdays available Reserve Now!! 209-599-4644

Maui, HI - Kahana Reef ocean-front 1BR/1BA condominium. Beautiful two-island view, ocean-side pool, and BBQs. Low LLNL rates for year-round reservations. 925-449-0761

South Lake Tahoe - Condo available 3/24 to 3/31; modern 3bdrm, 3bath,1800 sqft; 2 minute walk to Heavenly Valley Ski lifts. Call after 6pm 925-447-8144

Eagle Lake - Now is the time to schedule this 2bd 2bth complete kitch with extras. Avail. June-

Dec. 530-825-2131 925-447-3780

Kihei, Maui - Oceanfront 1, 2, & 3 bedroom condos w/all amenities. Beautiful view, large pool, tennis courts, bbq. Low LLNL Rates. 925-846-8405

Palm Springs - --luxury hotel resort, nicely furnished 1 or 2 bedroom apartment with full kitchen and jacuzzi. Wonderful vacation place. \$130-160/night. 925-606-5660

South Lake Tahoe Vacation Rental, 3 BR+loft, sleeps 12, hot tub, close to Heavenly Valley, walk to lake, 1 mi from casinos. 925-449-2112

WANTED

Need moving boxes. All sizes, types. Will pick up. 209-606-3892

WANTED: Regulation size (8 foot) pool table. I will pick up. 209-478-1381

Looking for a Mac or PC with printer for childrens first computer. Reasonable price. 209-832-7112

HOUSE to rent (3 bdrm) near Livermore for 1 yr from mid-Aug for visiting scientist w/family. Can swap for 4 bdrm house in Paris suburb (near Saclay). 925-455-6434

Hog Fencing--need 13 panels 16ft.long x 5ft. tall, heavy gage steel I will haul 925-447-6834

Looking for five or six women who are interested in helping start an official Investment Club. Women who want to Learn and Earn together. 925-449-7751

Wanted: Campbells Labels and General Mills BoxTops for Education (10 cent logo) for school programs. 209-832-1535

Wanted: Child car seat with rating to at least 40 lbs. Will pay reasonable price. 209-833-9141

Matchbox 20 tickets (2) for March 31 concert at San Jose Arena. Will pay face value. 209-824-3150

Surger sewing maching in good working order wanted. 209-830-8321

If you have an empty space and would rent it out for a reasonable fee. We need a place to store some furniture 925-455-6164

Suzuki Samarai in running condition. 209-952-5305

Cab-Over Camper, 8 foot, self contained, in very good to excellent condition. 925-625-5938

Generic version of Yellow Jacket attratant 935-735-6002

Sundays newspaper coupon inserts and other coupons. Send to D. Yazzie for D. Garfield. 925-516-2728





## THE BACK PAGE

### PIONEER

*Continued from page 1*

rium, along with the other Science Day presentations. (See <http://stars.llnl.gov/ScienceDay/agenda.html>).

Larry Smarr is a pioneer in prototyping a national information infrastructure to support academic research, governmental functions, and industrial competitiveness. In 1985, he became the founding director of the National Center for Supercomputing Applications (NCSA) at the University of Illinois at Champaign-Urbana.



Larry Smarr

director of the California Institute for Telecommunications and Information

In 1997, he became the founding director of the National Computational Science Alliance, comprised of over 50 universities, government labs and corporations linked with NCSA in a national-scale virtual enterprise to prototype the information infrastructure of the twenty-first century.

Most recently, Smarr became the founding

Technology, which spans the Universities of California at San Diego and Irvine.

Smarr received his Ph.D. from the University of Texas at Austin and conducted observational, theoretical and computational based astrophysical sciences research for fifteen years before becoming director of NCSA. He is a member of the National Academy of Engineering and a Fellow of the American Physical Society and the American Academy of Arts and Sciences. In 1990 he received the Franklin Institute's Delmer S. Fahrney Gold Medal for Leadership in Science or Technology. Smarr is a member of the President's Information Technology Advisory Committee.

### GALLI

*Continued from page 1*

ally see, is technical and theoretical developments closer and closer to actual experiment, by using computational modeling," Galli said.

Galli will be discussing her team's work in quantum molecular dynamics on Science Day, March 21 at 2:30 p.m. in the Bldg. 123 auditorium. Her talk, "Quantum Simulations of Condensed Matter Systems," addresses "how the physical properties of water and hydrogen are modified at high temperature and pressure, the interaction of some organic molecules with water, and how structural and electronic properties of selected semiconductors are modified at the nanoscale."

In addition to talks by Lab scientists and engineers on the theme of supercomputing, the Science Day celebration will highlight research from across the Lab in a poster session. (For more information, see the Website at <http://stars.llnl.gov/ScienceDay/>.)

Galli said that the QSG team's research currently focuses on the "investigation of systems and processes relevant to condensed matter physics,

physical chemistry and material science, using electronic structure calculations and quantum simulations.

"We interact with many other departments at the Lab," Galli explained, as the QSG can offer other departments a kind of virtual laboratory for quantum level work. "In short, quantum simulations can provide information that complements real laboratories and mathematical theories.

"Most of our projects are LDRD funded and involve collaborative efforts with several other directorates. In particular we have a very fruitful collaboration with Biology and Biotechnology Research on computational biology, and a Basic Energy Science (BES) funded collaboration with Chemistry and Materials Science on the properties of surfaces and nanostructures."

Furthermore, the study of the physical properties of various materials and their reactions under extreme conditions – which are often not possible in true experimentation – are critical to the Stockpile Stewardship Program and its research in the behavior of the nation's nuclear weapons.

Galli came to the Lab three years ago, after seven years at the Swiss Institute for Technology and postdoctoral fellowships at the University of



## Mark your calendar!

### Wednesday, March 21 Bldg. 123 Auditorium

For a complete list of Science Day presentations, along with abstracts, see the Website at <http://stars.llnl.gov/ScienceDay/>

Illinois at Champaign Urbana and IBM Zurich.

For more information on Galli's research with the Quantum Simulations Group, see <http://www-phys.llnl.gov/Research/qsg/index.html> or <http://www.llnl.gov/str/Gygi.html>.

### THREAT

*Continued from page 1*

ment, production, acquisition, stockpiling and use of chemical weapons as well as the transfer of chemical-weapon-related technologies.

"Chemical and biological weapons are a growing threat to the security of the United States and its allies," said Jeff Richardson, Deputy Program Leader for the Proliferation Prevention and Arms Control Program. "Putting the capabilities of the Forensic Science Center to work in the effort to prevent the spread of chemical weapons is one more way the Laboratory can contribute to national and international security."

Under the terms of the CWC, all samples must be analyzed at two OPCW-designated laboratories. In addition, the U.S. Congress mandates that all U.S. samples must be tested in the U.S. Currently, the U.S. only has one designated laboratory, the Edgewood Chemical and Biological Forensic Analytical Center in Maryland. LLNL will provide the required second facility.

About a dozen laboratories around the world have been designated by the OPCW. These laboratories

must maintain high scores on yearly proficiency tests to keep their designation.

The Lab will begin the rigorous testing required for OPCW certification in early April, with official designation expected in 2002. Once certified the Laboratory will analyze samples as part of the OPCW's regular proficiency testing and inspection cycle. Designated labs keep their capabilities sharp by regularly testing samples of surrogate chemical weapon agents (compounds that are chemically similar to CW agents and their precursors).

The purpose of the OPCW-designated labs is to test samples collected by OPCW inspectors from chemical plants around the world to determine whether the samples contain chemical weapons agents and their precursor chemicals or decomposition products. "To date no actual samples have been officially collected or analyzed at any lab. The only 'samples' examined have been those provided for proficiency tests or round-robin exercises," Richardson said. "State Department officials believe we will receive, at most, one or two samples per month, but we will have a facility that is fully prepared to perform the analysis."

Richardson emphasized that "Our samples will be extremely dilute (i.e., part-per-million level). So dilute

that they can be shipped commercially or sent through the mail. In fact, one of the main reasons we've been selected is for our unmatched ability to characterize chemicals at ultratrace levels."

DOE and the State Department will jointly provide the \$1 million needed to establish LLNL as the second U.S. OPCW-designated lab. Once the LLNL lab is accredited, DOE will provide the funding to maintain the laboratory and perform required sample analysis.

"We have all the facilities in place and the work falls within our existing environmental regulations," said Richardson. "This is a good fit for our forensic activities and the Lab's core mission. The work we will do as an OPCW-designated laboratory will help enforce the CWC and make the world a safer place."



NEWSLINE  
UC-LLNL  
PO Box 808, L-797  
LIVERMORE, CA 94551-0808

### DDLs

*Continued from page 1*

rocks induced by hydrate formation, and they are ready to make in situ laser Raman measurements of a wide variety of oceanic chemical phenomena.

Each of these studies is recorded on videotape and the result is the ability to show graphic and often compelling images of novel science in the deep sea.

Prior to joining the Monterey Research Institute in 1991, Brewer spent 24 years as a researcher at the

Woods Hole Oceanographic Institution. He served as program manager for Ocean Chemistry at the National Science Foundation from 1981-83, receiving the NSF Sustained Superior Performance Award. He is a fellow of the American Geophysical Union and of the American Association for the Advancement of Science, and has served on international ocean sciences committees.

Director Bruce Tarter invites all employees to attend. The lecture will be broadcast on Lab Channel 2 Thursday, March 15, at 10 a.m., noon, 2, 4, and 8 p.m., and Friday, March 16, at 4 a.m.